

Geophysical Research Abstracts,  
Vol. 10, EGU2008-A-12145, 2008  
SRef-ID: 1607-7962/gra/EGU2008-A-12145  
EGU General Assembly 2008  
© Author(s) 2008



## **Hydrometeorological services for water management and flood protection**

Bruno Rudolf

Deutscher Wetterdienst, Postfach 10 04 65, 63004 Offenbach am Main, Germany,  
bruno.rudolf@dwd.de

Inland water management agencies mainly address flood forecast, prevention and risk management, but also assessment of low flow situations (droughts) and freshwater resources. Meteorological input comprises: High spatially and temporally resolved observational products and quantitative predictions of precipitation, evaporation and snow cover (storage and melting). The processing chain spans from observation via numerical weather forecast to runoff models. The best precipitation analysis for Germany is achieved by combining radar and in situ observations; this product 'RADOLAN' is available near-realtime on an hourly basis. It is being spatially extended to transboundary river basins and will also be used in forecast mode. The NWP model COSMO-DE uses RADOLAN products and provides precipitation forecasts in 2.8 km spatial resolution. Ensemble based weather predictions providing forecast uncertainty information are more and more accepted by hydrological users. The model SNOW is combined with observations in order to improve snow melt forecasts. Time-series of precipitation and extreme statistics complete the hydrometeorological services supporting risk management and climate change assessment.